

WHAT IS CLAIMED IS:

1. An apparatus for responding to a current user command associated with one of a plurality of task/domains, the apparatus comprising:

means for storing cumulative feedback data gathered from multiple users during previous operations of the apparatus and segregated in accordance with the plurality of task/domains;

means for determining the current task/domain with which the current user command is associated;

means for determining a current response to the current user command on the basis of that portion of the stored cumulative feedback data associated with the current task/domain;

means for communicating to the user the current response; and

means for receiving from the user current feedback data regarding the current response,

wherein the current feedback data is added to the cumulative feedback data stored in said storing means and associated with the current task/domain.

2. An apparatus according to Claim 1, wherein the current task/domain determining means determines the current user task/domain by asking the user.

3. An apparatus according to Claim 1, wherein the current task/domain determining means determines the current user task/domain by inferring the current user task/domain from at least one of past and current user behavior.

4. An apparatus according to Claim 1, wherein:
the apparatus is a server on a wide area network,
the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and
the current task/domain determining means determines which of the task/domains is currently intended by asking the user.
5. An apparatus according to Claim 1, wherein:
the apparatus is a server on a wide area network,
the commands from the user comprise one of a search term for one of a set of discovery searching task/domains and a signifier for one of a set of signifier mapping task/domains, and
the current task/domain determining means determines which of the task/domains is currently intended by asking the user.
6. An apparatus according to Claim 1, wherein:
the apparatus is a server on a wide area network,
the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and
the current task/domain determining means determines which of the task/domains is currently intended by examining at least one of past and current user behavior.
7. A method for responding to a current user command associated with one of a plurality of task/domains, comprising:

determining the current task/domain with which the current user command is associated;

determining a current response to the current user command on the basis of previously gathered and stored feedback data associated with the current task/domain;

communicating to the user the current response;

receiving from the user current feedback data regarding the current response; and

storing the current feedback data,

wherein the stored current feedback data is added to cumulative feedback data gathered and stored during previous iterations of the method and associated with the current task/domain.

8. A method according to Claim 7, wherein the current user task/domain is determined by asking the user.

9. A method according to Claim 7, wherein the current task/domain is determined by inferring the task/domain from at least one of past and current user behavior.

10. A method according to Claim 7, wherein:

the method is performed by an apparatus functioning as a server on a wide area network,

the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and

the intended current task/domain is determined by asking the user.

11. A method according to Claim 7, wherein:
 - the method is performed by an apparatus functioning as a server on a wide area network,
 - the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and
 - the intended current task/domain is determined by examining at least one of past and current user behavior.
12. A computer-readable storage medium storing program code executable by a program-controlled apparatus, said code being operable to cause the apparatus to:
 - determine the current task/domain with which the current user command is associated;
 - determine a current response to the current user command on the basis of previously gathered and stored feedback data associated with the current task/domain;
 - communicate to the user the current response;
 - receive from the user current feedback data regarding the current response; and
 - store the current feedback data,
wherein the stored current feedback data is added to cumulative feedback data gathered and stored during previous executions of the code and associated with the current task/domain.
13. A computer-readable medium according to Claim 12, wherein the current user task/domain is determined by asking the user.

14. A computer-readable medium according to Claim 12, wherein the current task/domain is determined by inferring the task/domain from at least one of past and current user behavior.

15. A computer-readable medium according to Claim 12, wherein:

the apparatus functions as a server on a wide area network,

the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and

the intended current task/domain is determined by asking the user.

16. A computer-readable medium according to Claim 12, wherein:

the apparatus functions as a server on a wide area network,

the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and

the intended current task/domain is determined by examining at least one of past and current user behavior.

17. An apparatus for responding to a current user command associated with one of a plurality of task/domains, the apparatus comprising:

a digital storage device that stores cumulative feedback data gathered during previous operations of the apparatus and segregated in accordance with the plurality of task/domains;

a first digital logic device that determines the current task/domain with which the current user command is associated;

a second digital logic device that determines a current response to the current user command on the basis of that portion of the stored cumulative feedback data associated with the current task/domain;

a first communication interface that communicates to the user the current response; and

a second communication interface that receives from the user current feedback data regarding the current response,

wherein the current feedback data is added to the cumulative feedback data stored in said digital storage device and associated with the current task/domain.

18. An apparatus according to Claim 17, wherein the first digital logic device determines the current user task/domain by asking the user.

19. An apparatus according to Claim 17, wherein the first digital logic device determines the current user task/domain by inferring the current user task/domain from at least one of past and current user behavior.

20. An apparatus according to Claim 17, wherein:

- the apparatus is a server on a wide area network,
- the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and
- the first digital logic device determines which of the task/domains is currently intended by asking the user.

21. An apparatus according to ~~claim 17~~, wherein:
the apparatus is a server on a wide area network,
the commands from the user comprise one of a search
term for a discovery searching task/domain and a signifier
for a signifier mapping task/domain, and
the first digital logic device determines which of
the task/domains is currently intended by examining at
least one of past and current user behavior.

22. A method of locating items containing language using
a particular vocabulary, said method comprising:
crawling nodes on a network to extract from the nodes
identifiers for each of a plurality of vocabularies;
compiling an index of the extracted vocabulary
identifiers;
receiving a command associated with an item using one
of the plurality of vocabularies; and
finding, using the index of vocabulary identifiers,
the items using the one vocabulary.

23. A method according to Claim 22, wherein the network
is the World Wide Web.

24. A search server for finding items in response to user
search requests, the server having access to index tables
that include identification data on any vocabulary, schema
or DTD that may be specified as defining semantics of the
item, for each indexed item for which such a specification
is made, the server comprising:

means for determining a current task/domain with
which a current user search request is associated; and

means for weighting possible responses to the search request so as to favor those for which the determined current task/domain corresponds to the specified vocabulary schema or DTD of the item.

25. A search server according to Claim 24, wherein the current task/domain determining means determines the current user task/domain implicitly by inference using matching, or semantic analysis or other natural language understanding techniques to identify related terms and categories drawing on knowledge of the vocabularies, schema or DTDs specified in the target items.

26. A search server according to Claim 24, wherein the current task/domain determining means determines the current user task/domain by asking the user.

27. A search server according to Claim 24, wherein the current task/domain determining means determines the current user task/domain by asking the user to specify semantic metadata to be found in the target item.

28. A search server according to Claim 24, wherein the current task/domain determining means determines the current user task/domain by asking the user to specify a vocabulary, schema, or DTD that corresponds to the task/domain.

29. A search server according to Claim 24, wherein the current task/domain determining means determines the current user task/domain by inferring the current user task/domain from at least one of past and current user behavior.
30. A search server according to Claim 24, wherein:
 - the server is a server on a wide area network,
 - the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and
 - the current task/domain determining means determines which of the task/domains is currently intended by asking the user.
31. A search server according to Claim 24, wherein:
 - the server is a server on a wide area network,
 - the commands from the user comprise one of a search term for one of a set of discovery searching task/domains and a signifier for one of a set of signifier mapping task/domains, and
 - the current task/domain determining means determines which of the task/domains is currently intended by asking the user.
32. A search server according to Claim 24, wherein:
 - the server is a server on a wide area network,
 - the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and

the current task/domain determining means determines which of the task/domains is currently intended by examining at least one of past and current user behavior.

33. A search server for finding items in response to user search requests, the items being preferred to be those that use a specified vocabulary, the server having access to index tables the extraction of which resulted in vocabulary identifications for each indexed item that may be specified as defining vocabulary of the item, for each indexed item for which such a specification is made, the server comprising:

means for determining a current task/domain with which a current user search request is associated; and

means for weighting possible responses to the search request so as to de-emphasize or exclude those for which the determined current task/domain does not correspond to the specified vocabulary of the item.

34. A search server according to Claim 33, wherein the current task/domain determining means determines the current user task/domain by asking the user.

35. A search server according to Claim 33, wherein the current task/domain determining means determines the current user task/domain by inferring the current user task/domain from at least one of past and current user behavior.

36. A search server according to Claim 33, wherein:
the server is a server on a wide area network,

the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and

the current task/domain determining means determines which of the task/domains is currently intended by asking the user.

37. A search server according to Claim 33, wherein:

the server is a server on a wide area network,

the commands from the user comprise one of a search term for one of a set of discovery searching task/domains and a signifier for one of a set of signifier mapping task/domains, and

the current task/domain determining means determines which of the task/domains is currently intended by asking the user.

38. A search server according to Claim 33, wherein:

the server is a server on a wide area network,

the commands from the user comprise one of a search term for a discovery searching task/domain and a signifier for a signifier mapping task/domain, and

the current task/domain determining means determines which of the task/domains is currently intended by examining past and current user behavior.